

Mating Scheme For Production Of HbA Replacement Mice

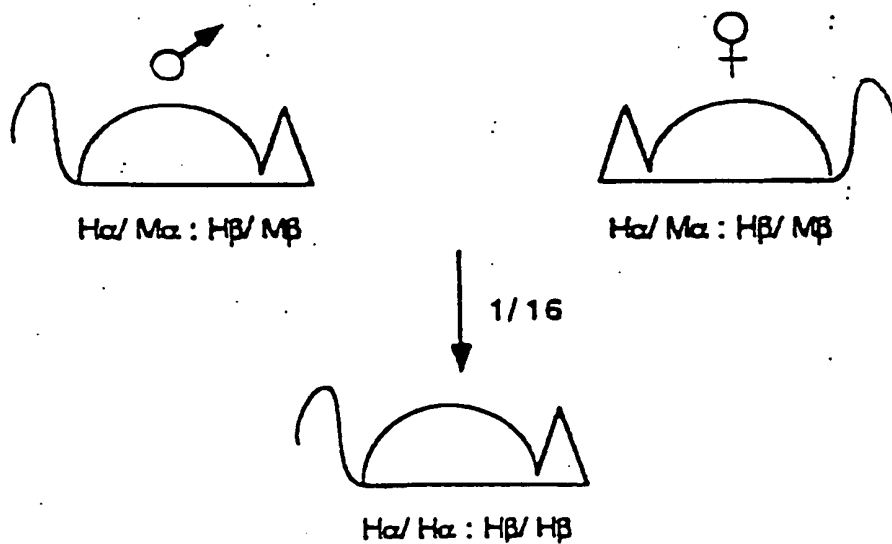
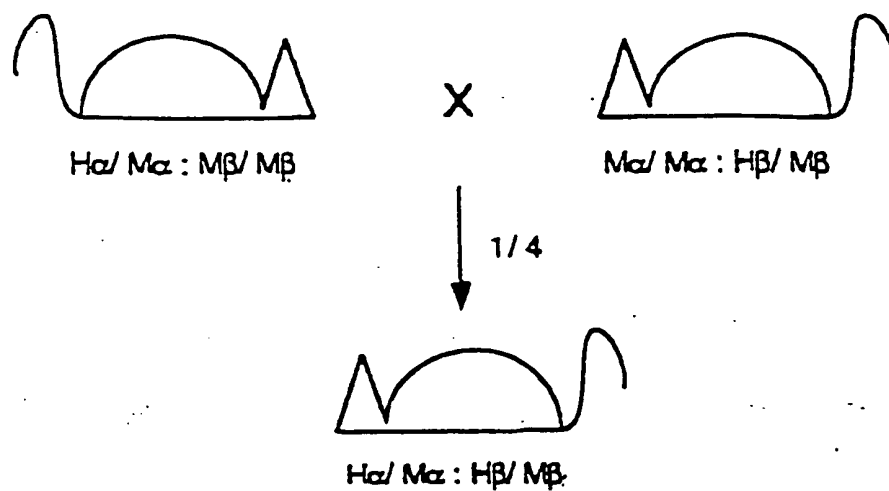
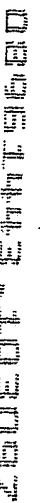
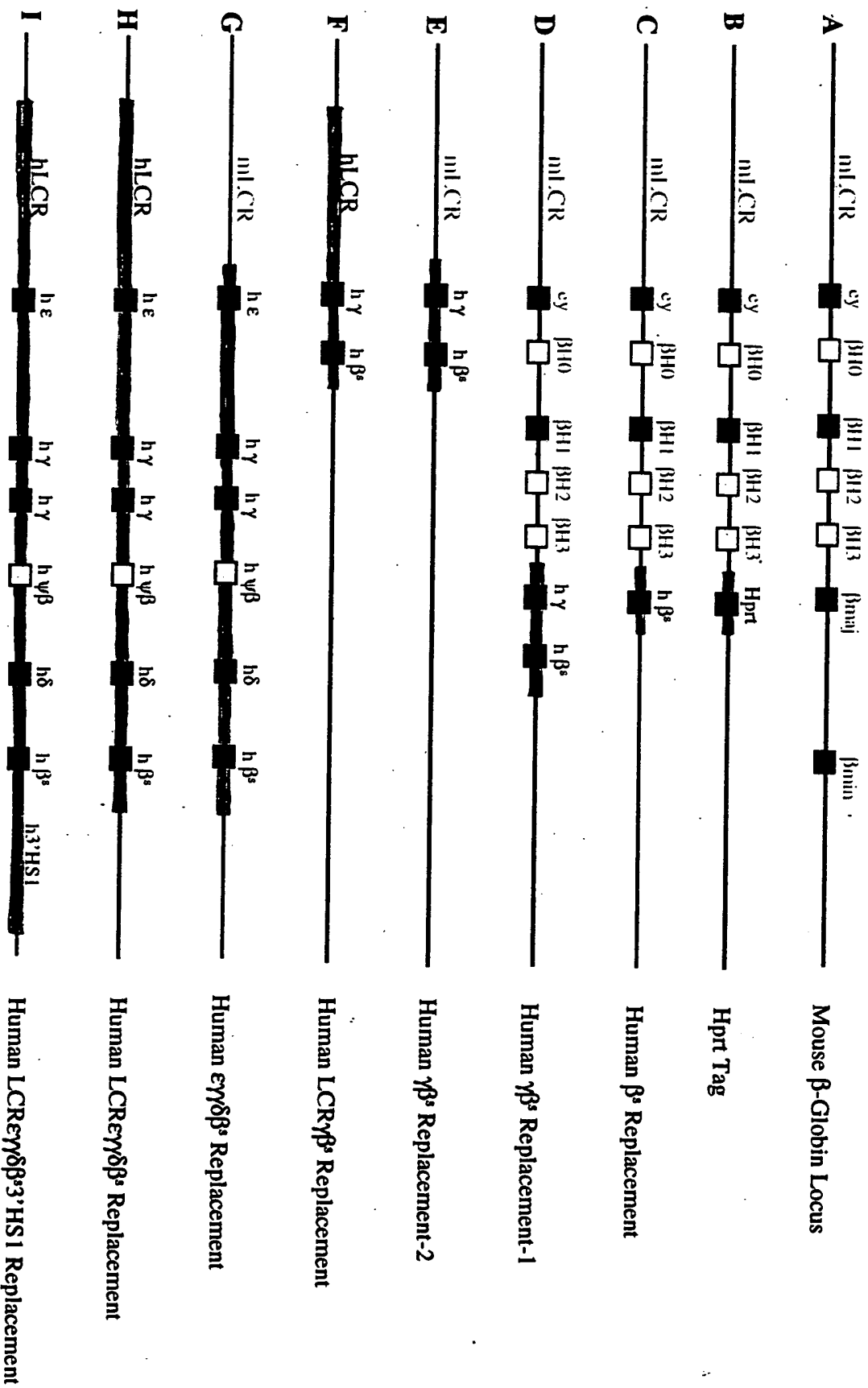


FIG. 1

Mouse β KO/human β replacement



Human Replacement Of The Mouse β -Globin Locus



Human Replacement Of The Mouse α -Globin Locus

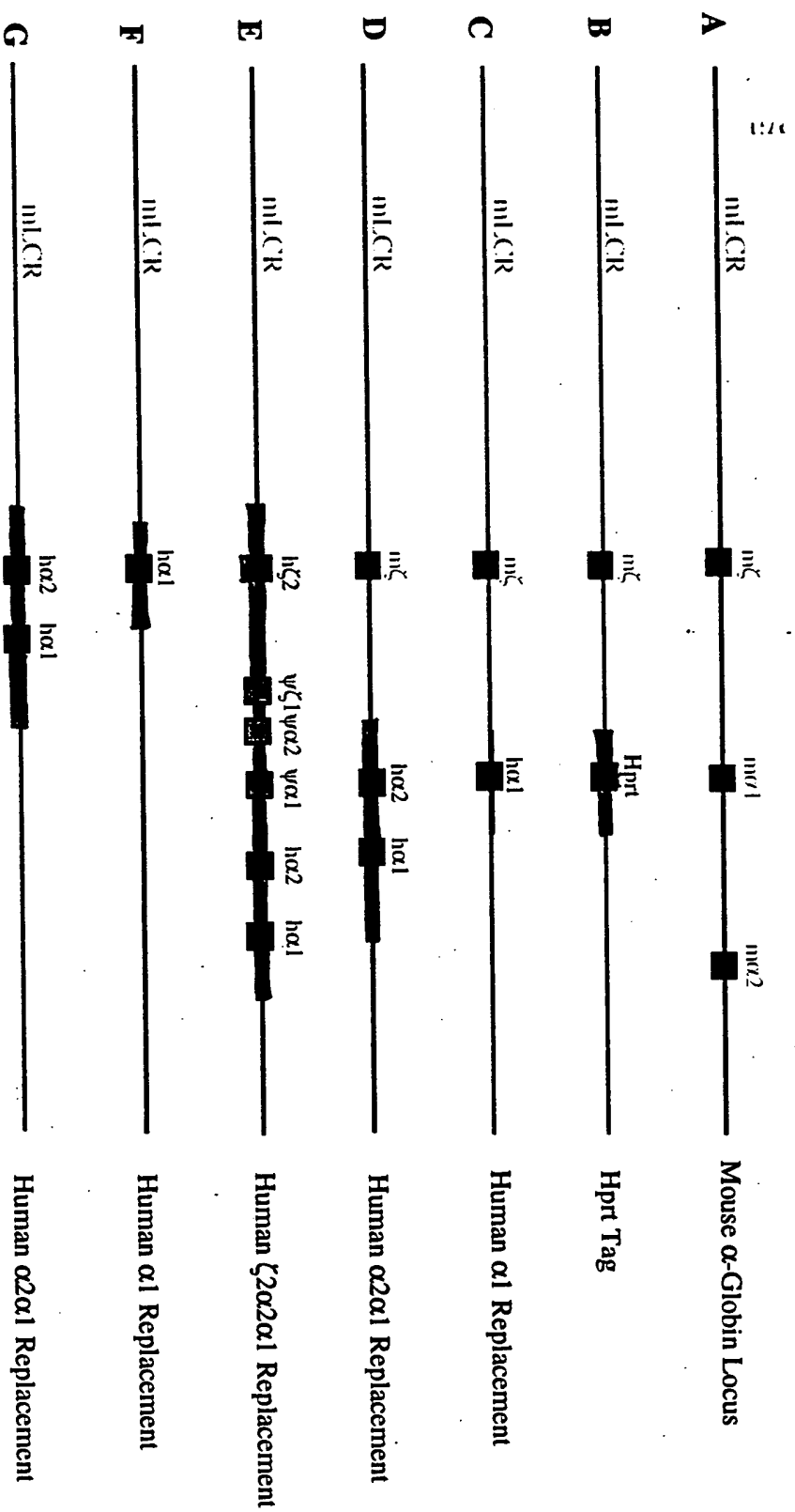


Fig. 4

Production Of Transgenic HbF \rightarrow HbA Mice (Doubly Homozygous For Mouse α -Globin And β -Globin Deletions)

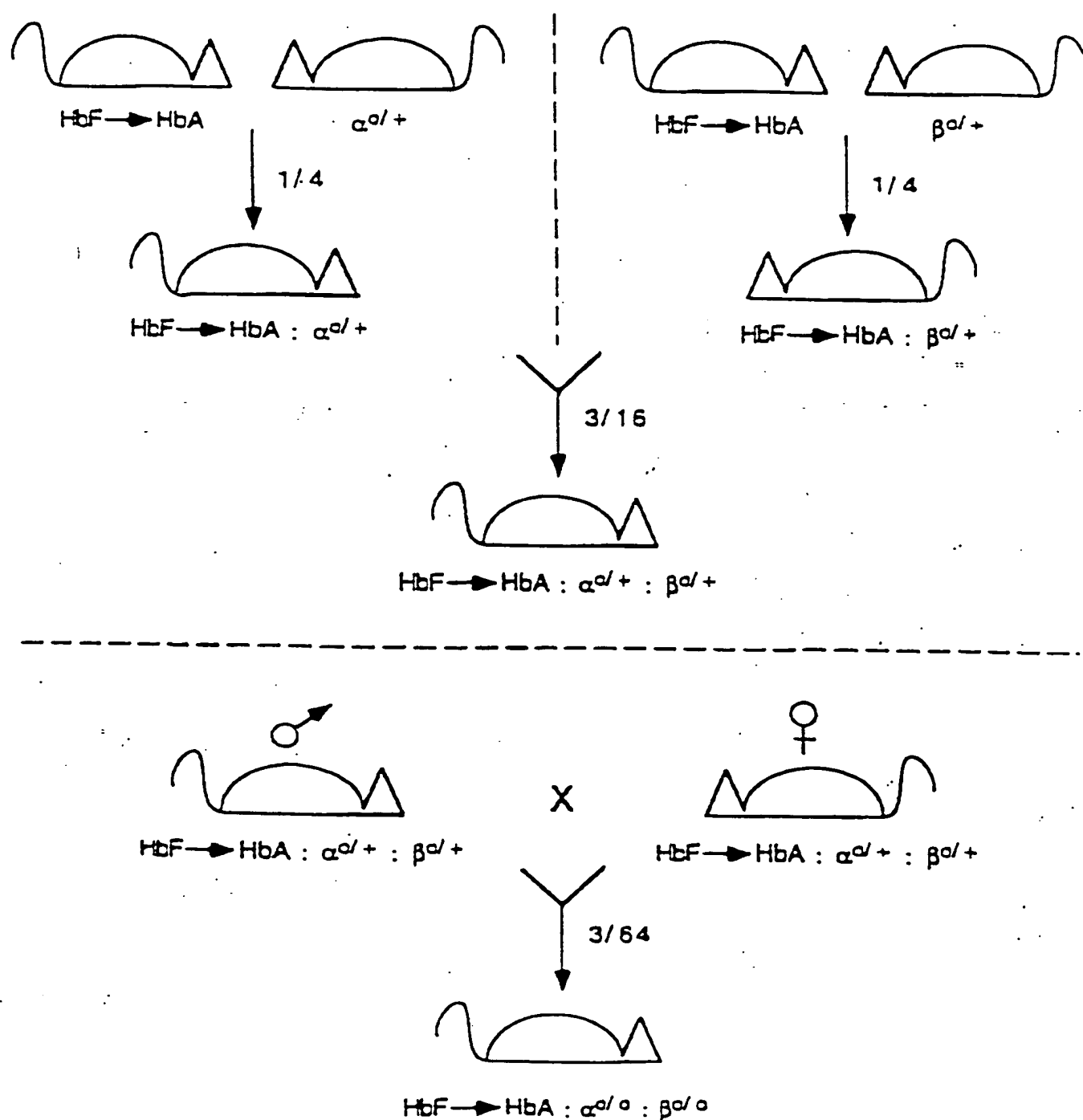
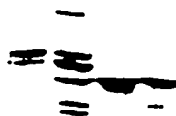


FIG. 5

Isoelectric Focusing Gel Of Transgenic Mouse Hemolysates

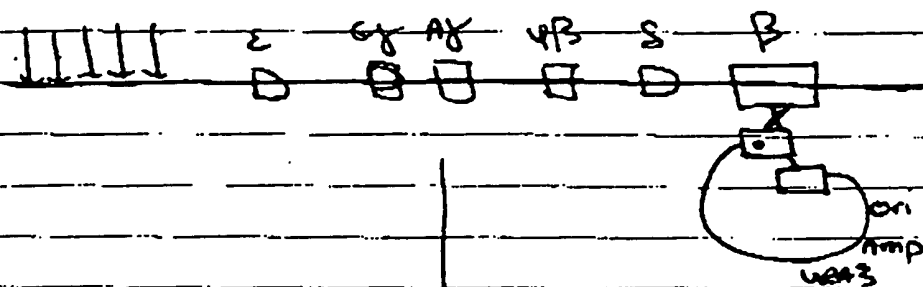
1 2 3 4



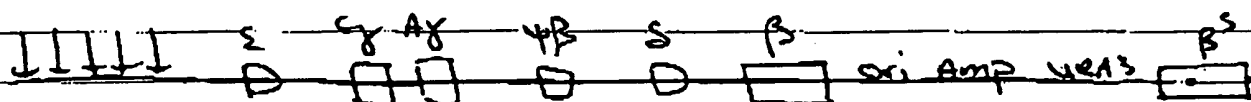
1. Mouse Control
2. HbF \rightarrow HbA : $\alpha^{+/+}$: $\beta^{+/+}$ Mouse
3. HbF \rightarrow HbA : $\alpha^{o/o}$: $\beta^{o/o}$ Mouse
4. Human AA Control

FIG. 6

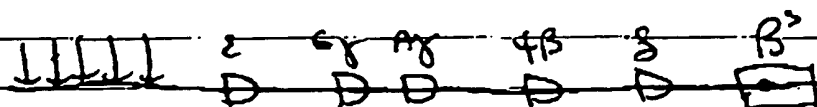
YAC



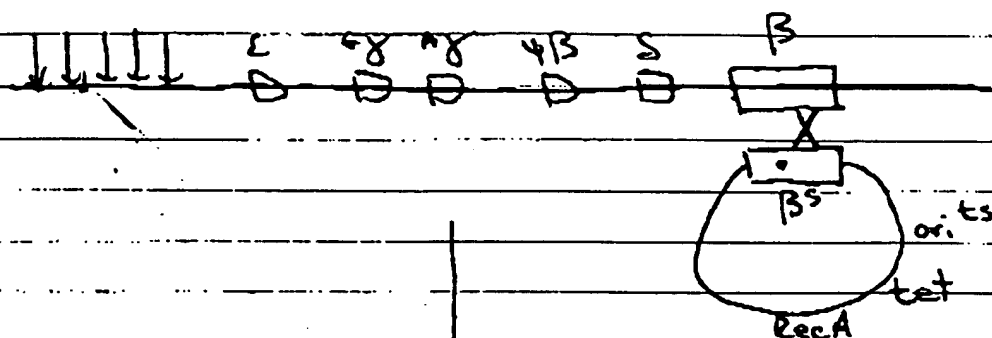
select for URA3⁺



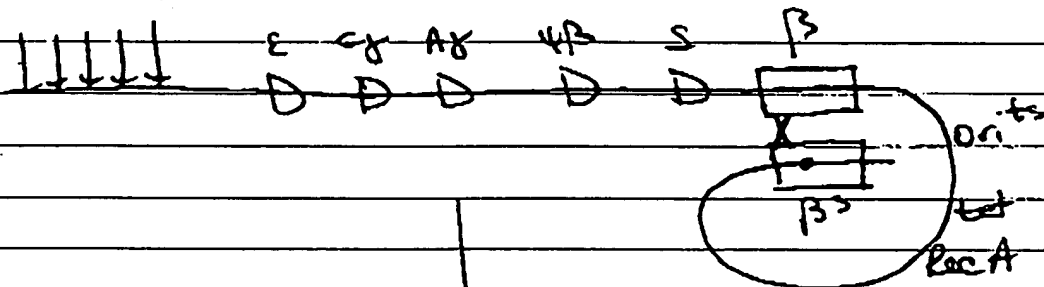
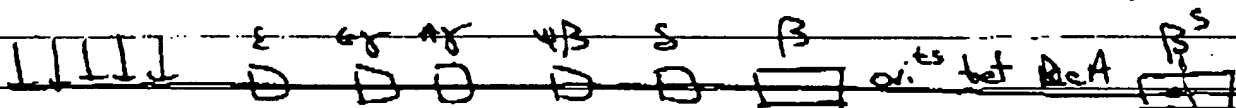
select for URA3⁻
(5-fluoro-orotic acid)



BAC



select for tet^R at $43^\circ C$
(non-permissive temp for ori^{ts})



select for tet^S (Fusaric Acid)
at $37^\circ C$

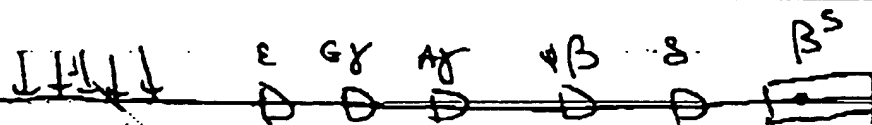


FIG. 9A

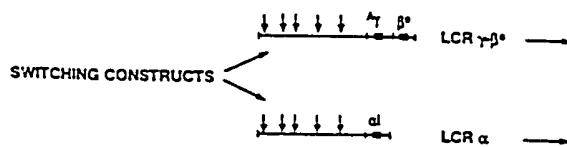
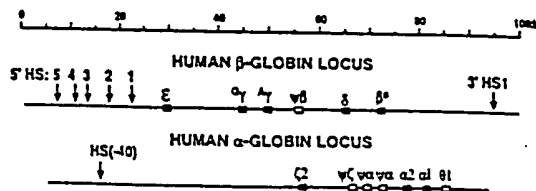


FIG. 9C

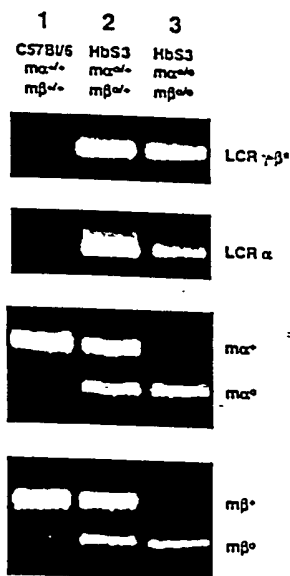
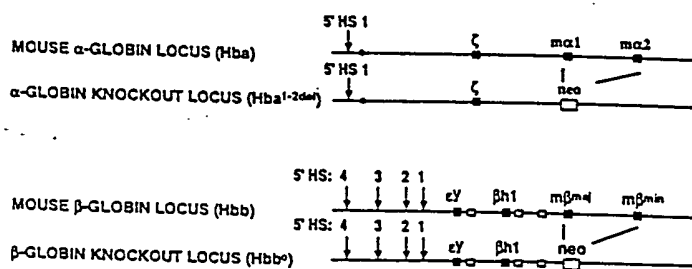


FIG. 9B



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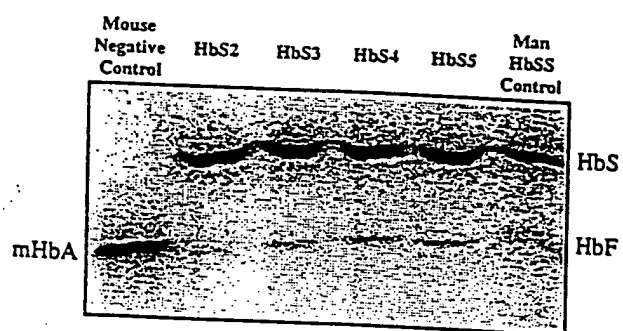
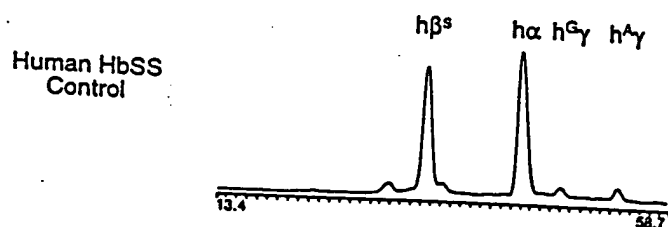
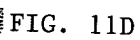
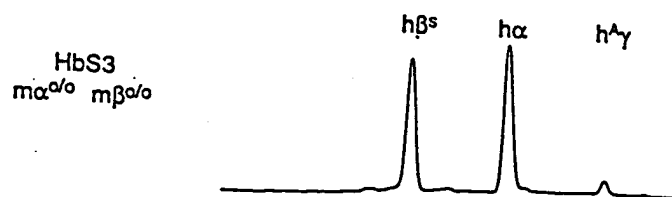
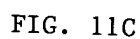
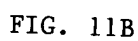


FIG. 10

SECRET



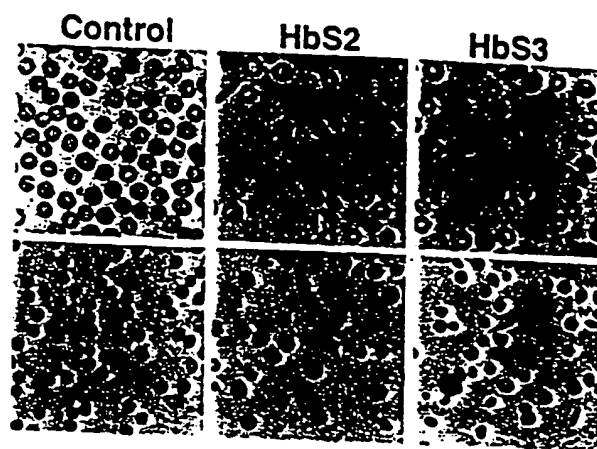


FIG. 12

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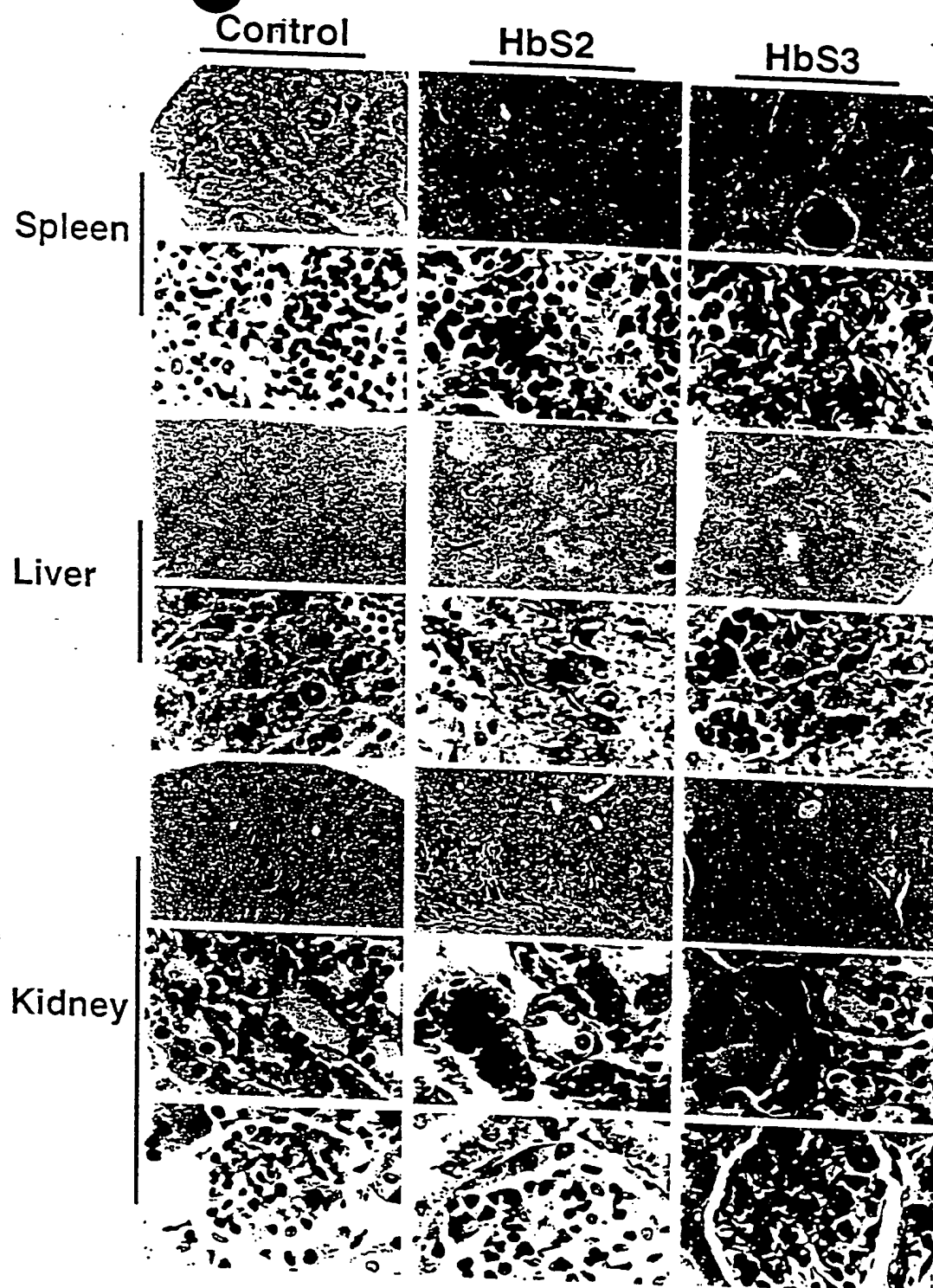


FIG. 13

FIG. 14A



FIG. 14B



Hemoglobin Switching In HbA Mice

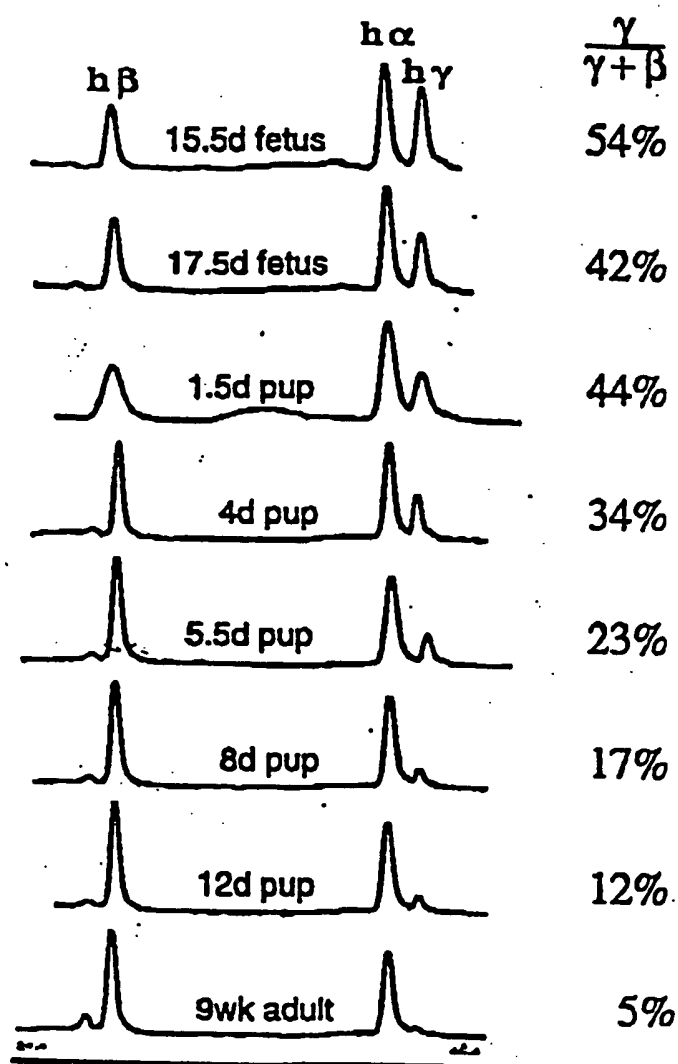


FIG. 15

**Increasing HbF Levels In HbS Mice:
Crossing The HbS 3 and HbF Lines**

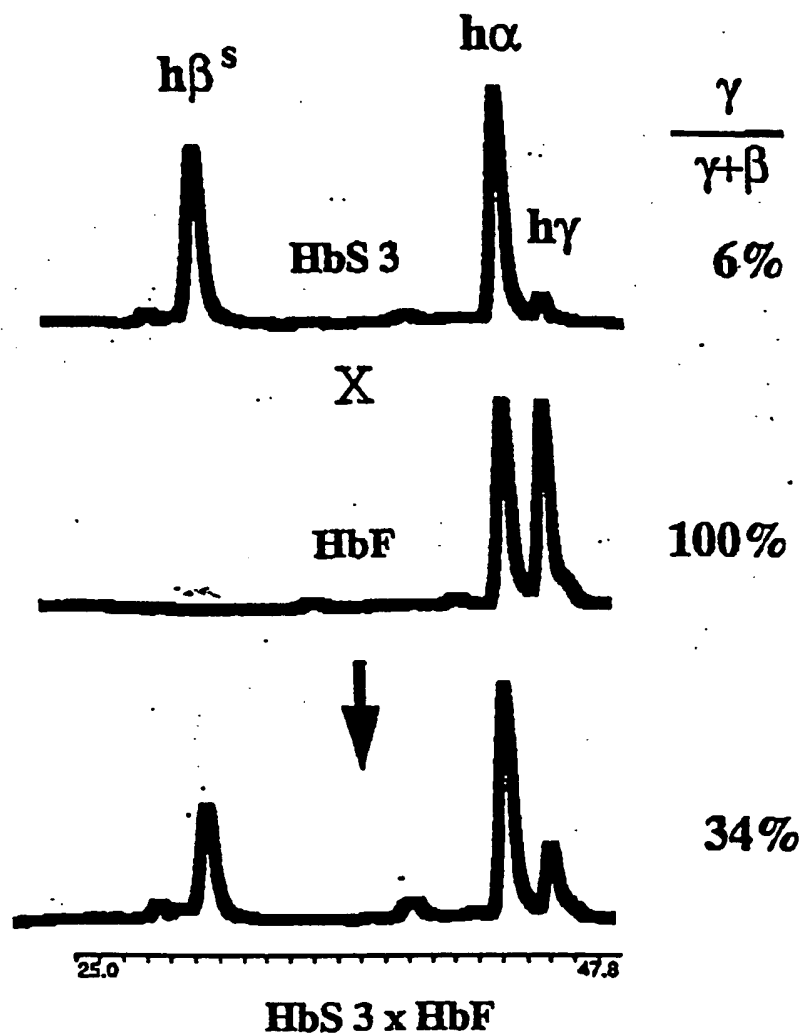


FIG. 16